Bottcher, Helen

From: (b) (c)

Sent: Friday, June 24, 2016 10:06 PM

To: wyckoffcomments **Subject:** Gander Comments

The following was published as a guest column in the June 24 edition of the Islander weekly newspaper:

The EPA has proposed a clean up remedy ("Alternative 7") at the Bainbridge Island Wyckoff Superfund site that binds the contamination with cement, thereby solidifying the toxic material so it does not leach into Eagle Harbor and the underlying groundwater. EPA acknowledges that this is not a permanent solution, meaning that the cement will eventually degrade and release the cancercausing material to the environment at some later date. Yes, it is a short-term solution. But why would we spend an estimated \$80 million dollars on a remedy that only works for a finite and ill-defined period of time, only to revert back to the current conditions of thousands of tons of leaching contamination?

Alternative 6 is a better solution, which destroys the contamination by heating it to 1100 degree F and burning off the creosote. The successful implementation of thermal destruction is a certainty, unlike the non-permanent cement solidification. Alternative 6 was eliminated primarily due to a \$160 million dollar price tag that was assigned using a series of conservative assumptions, including excavation to 20 feet below ground surface. The \$160M price tag can be lowered by more than 25% by focusing on the removal of hotspots identified in the Targost studies; eliminating the thermal enhanced extraction aspect of the Alternative 6 option and focusing on the slower but proven aerobic bacterial breakdown of the deeper creosote; and eliminating some of the costly aspects of the \$40 million "common elements" that all of EPA's alternatives have advertised as essential remediation construction costs.

Thus, a modification of Alternative 6 will bring the price tag close to Alternative 7, and give Islanders a more permanent solution they deserve. The permanent and immediate destruction of most of the contamination hotspots will also reduce forever the leachate that will eventually resurface after the cement solidification remedy degrades over time.

We should be wary of EPA's claims of the suitability of the cement solidification remedy. In 2001, the EPA stated that the 1,800 foot steel sheet pile wall surrounding the site would last 50 years. As of 2015, less than 15 years later, the wall is badly corroded and leaking. In 2003, EPA spent millions on the failed steam injection pilot test, and have yet again resurrected this questionable technology as a "wet steam injection" aspect of Alternative 7.

These past failures illustrate the difficulty in addressing a challenging site impacted by corrosive seawater and contaminants that are by nature resistant to remediation. EPA's remedy has considerable uncertainty, and their report acknowledges that cement solidification has never been completed on a site of this size, depth, and physical conditions.

Please tell EPA you want a permanent solution by thermal destruction, not cement solidification. Send your comments regarding the Wyckoff/Eagle Harbor Proposed Plan and Feasibility Study to https://cumulis-epa.gov/super-cpad/cursites/csitinfo.cfm?id-1000612.

Melanie Keenan and Malcolm Gander, authors of the 2009 EPA-approved Bainbridge Island Sole Source Aquifer Designation